Original/Duplicate/Triplicate

# CONTRACT CERTIFICATE

(For Other Works)

SBR No. 18/19-20
DATED 29-4-19

EE/ELE/Y/BR No. 18/19-20
Dt. 29-4-19

No. 2nd & Final Bill

Date ..... 2018

Division: **Electricals (Yelahanka)** Sub-Division: **Electricals**

Bill Received No. Dated Divisional Cash Book Voucher No..... Dated.....
Sub Divisional **Job Code :-007-16-000041**

Schedule Docket No. Head of Account : **P – 0190** (Works Sanctioned by Hon Mayor)

D.R.No.

**Name of Work:-** Providing LED Street Lights to Veeranna Palya,Mariyanna Palya, Coffee bord Layout Kempapura colony Amruthnagar and Amruthalli etc in Ward No-07

Name of Contractor and Full Address:- **Technical Manager KRIDL BBMP ,**

Reference to Agreement No:EE/Ele/YZ/WO/ 36 /16-17 Date:18/02/2017

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Certified that the measurements were taken by me on 22/10/18 and recorded of Pages 256401 to 402 of measurement Book No. 2565/18-19 and that the work is satisfactorily executed.

Assistant Executive Engineer
Byatarayanapura Sub-Division
KRIDL, BBMP, Bangalore

Contractor

22/10/18

Officer-in-charge of work

Certified that the measurement were taken by me on ..... and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Assistant Executive Engineer (Ele)
BBMP, Bangalore

II Memorandum of Payment

| | | |
|---|---|---|
| 1) | Total value of work done or supplies made as per account within | Bill = 198069 =00 |
| 2) | Deduct amount to be held in reserve being .....percent Rs..... | |
| 3) | " Balance | |
| 4) | Deduct Payment: | |
| | a) Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D. No..... adjusted towards cash advance recovery of | Ir 2% 3961 =00<br>Scost 1% 1769 =00<br>CGST 1% 1769 =00<br>kwc 1% 3961 =00<br>CBF 0.1% 199 =00<br>ESD 7.5% 14856 =00 |
| | b) Payments / Now made } cost store or other materials supplied. / recovery of amount creditable to this/other work / Amount paid on this bill Cheque / Cash. | 20409+1316= 21725=00 |
| 5) | Balance being unpaid value of work done held in reserve. | deductions = 26515=00 |
| 6) | Deduct cash advance made on the Office cash Book Voucher No..... dated.....less adjustments. | Chvee = 17155H=00 |
| 7) | Net amount due to or from Contractor unadjustments items. | Total deductions = 48240 =00 |
| 8) | Advance to Contractor for materials brought to site (as detailed) within | Chvee = 149829=00 |
| 9) | Value of Government materials supplied. | |
| | Total amount adjusted - | |

2018-19 Audit Recovery

Contractor's Signature

Received Rs..... (in words).....
.....
by cash and by adjustment of Payment as per memorandum
(in final settlement of all demands)

Assistant Executive Engineer
Byatarayanapura Sub-Division
KRIDL, BBMP, Bangalore
(For use in the Office)

Witness
1.
2.

Assistant Executive Engineer
Byatarayanapura Sub-Division
KRIDL, BBMP, Bangalore

Stamp

Dated Signature of Contractor

Paid by me by Cheque No..... Dated.....
Cash Rs.....
Dated.....Initials of Officer making payment

ಲೆಕ್ಕಶೀರ್ಷಿಕೆ P0190 Hon Mayors grants
ರೂ: 198069=00 ಮೊತ್ತ ಪಾವತಿಸಿದ ಮೂಲ ಪ್ರತಿಯಿಂದ
ರೂ: 17155H=00 149829=00 ಮೊತ್ತ ಪಾವತಿಸಿದ ಮೂಲ ಪ್ರತಿಯಿಂದ
ರೂ: 26515=00 48240=00 ಮೊತ್ತ ಪಾವತಿಸಿದ ಮೂಲ ಪ್ರತಿಯಿಂದ

Executive Engineer

| Sl no | Description of item | Unit |
|---|---|---|
| | **Name of Work :Providing LED Street Lights to Veeranna palya, Mariyanna Palya, Coffee board layout, Kempapura colony, Amruthnager and Amruthhalli etc in Ward no 7.** | |
| 1 | LED Street light. Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs. 50000 hr. @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4 KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with<br>minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI 75+. housing with supplier word mark / name shall be engraved / Embossing on the die cast housing / body part. . Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacturer. Suitable for A1/A2 Roads as per IS 1944 Part I & Part II. 90 Watts | Each |
| 2 | LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with<br>minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & FixtureEfficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II.LED Streetlight 65watts | Each |
| 3 | Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires. Using 32mm dia G.I.pipe | Each |
| 4 | Wiring for lighting/power circuit using one of PVC insulated 1100v grade stranded **Aluminium** unsheathed wire single core/multi core cable in open or consealed system of wiring. a)4 sqmm. | Each |
| 5 | Supplying of 1.1kv grade Aerial Bunched cable stranded & compacted Aluminium Phase conductor and Stranded Messenger conductor with all aluminium alloy, Phase conductor is insulated with XLPE compound insulated Messenger with specified IS - 14255:1995 & confirming to GTP of group A. 3X16 + 1X25 + 1X16 sqmm | Per Mtr |
| 6 | Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR | Per Mtr |
| 7 | Piercing connector suitable for 16 sqmm - 95 sqmm AB cable -steel light connection. Bescom SR of 2010-11, Page no 16 of 34, Serial no 51.12. | Each |
| 8 | Suspension clamp assembly 25 to 95 sqmm bare messenger. Bescom SR of 2010-11, Page no 16 of 34, Sl no 51.17. | Each |

| Previous | | Present Measurement | | | Total Upto Date | | Remarks |
|---|---|---|---|---|---|---|---|
| Qty. | Cost | Qty. | Rate | Amount | Qty | Cost | |
| 45 | 1406250.00 | 0 | 31250.00 | 0.00 | 45 | 406250.00 | |
| 130 | 2433600.00 | 0 | 18720.00 | 0.00 | 130 | 2433600.00 | |
| 166 | 148238 | 0 | 893.00 | 0.00 | 166 | 148238.00 | |
| 495 | 3712.5 | 0 | 7.50 | 0.00 | 495 | 3712.50 | |
| 500 | 58500 | 0 | 117.00 | 0.00 | 500 | 58500.00 | |
| 500 | 5150 | 0 | 10.30 | 0.00 | 500 | 5150.00 | |
| 25 | 3675 | 0 | 147.00 | 0.00 | 25 | 3675.00 | |
| 25 | 7000 | 0 | 280.00 | 0.00 | 25 | 7000.00 | |

| | | |
|---|---|---|
| 9 | Dead end clamp / Anchor clamp assembly 25 to 95 sqmm bare messenger, Bescom SR of 2010-11, Page no 18 o 34, Sl no 51.16. | Eac |
| 10 | Erection of Suspension Clamp - 25 to 95 sqmm bare messenger. Bescom SR of 2010-11, Page No 21 of 27, Sl No 26.6. | Eac |
| 11 | Fixing of Universal Hook. Bescom SR of 2010-11, Page No 22 of 27, Sl no. 26.10. | Eac |
| 12 | Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable. 4 core 16 sqmm | Per M |
| 13 | Labour charges for lying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct.b)25sqmm to 75 sqmm | Per M |
| 14 | Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete. (As perCivil SR KSRB I-2, P-7).a) In soil (ordinary) | Per M |
| 15 | Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel). | Per M |
| 16 | Supplying and Fixing .....including all Hardware's etc. complete as per the standard technical specification of BESCOM. A)1.1 KV Pin Insulator | Each |
| 17 | No. 8 Strain Insulator | Each |
| 18 | Supplying and Fixing ..... including all Hardware's etc. complete as per the standard technical specification of BESCOM. RCC Clamp | Each |
| 19 | Supply and fixing of .....cross arm including all Hardware's complete as per the standard technical specification of BESCOM. 2 Pin 45x45x5mm -510mm | Each |
| 20 | Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.f)40-63Amps TPN, Group A | Each |
| 21 | 5-32Amps SP | Each |
| 22 | Supplying and fixing electro mechanical timer (without contactor) using necessary bolts, nuts and washers etc.. Group A, PWD SR 2006-07, | Each |
| 23 | Supply and fixing of 4-pole power contactor with NO/NC contacts on existing wood / panel board using necessary bolts, nuts, washers and wiring etc., complete. d) 100-125 Amps | Each |
| 24 | Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and Copper conductor single core cable in open or consealed system of wiring.I Group A Materials.g)16 sqmm | Per Mt |
| 25 | Supplying and fixing phylum brand hand plastic sheet 3mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws | Sqcm |
| 26 | Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. And M.S. flat... with bolts, washers etc.; and painted with 2 coats of red oxide and then two coats of approved paint. a)40X40X6mm | Per Mtr |
| 27 | Fabricating supplying and mounting MS box made out... SWG suitable for floor/wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size cdlamps with mecessary cable entry pipe with gland and box should be finished with 2 cdoats of red oxide primer paint and finally finished with approved colour enameled metal pain etc., complete. b)16 swg | Sqcm |
| 28 | Fixing halogen/ metal hallide /SVL/IL/LED flood light fittings over existing pole/ wall ceiling including clamps bolts nuts and wiring using sitable capacity wires | Each |
| 29 | Supply and fixing of 230 volts Porcelain holder for MV/SV/MH lamp. 250-400Watts lamp Holder | Each |
| 30 | Painting of existing street light pole after scrapping the old paint and painted with suitable colour enamel/Silver paint including coping/footing of the pole.Upto 5Mtr street light pole. | Each |
| 31 | Supplying 70Watts MH integral post top lantern Metal halide fitting suitable for pole mounted with fully vermin, weather proof, elegant in shape, appearance, UV stabilized clear acrylic diffusers, camouflaged horizontal lamp, holder and lamp, IP 54 protection. Electrical safety class 1. The fitting shall have ferromagnetic copper choke with capacitor, igniter and fully wired to operate on 230V 50Hz AC Supply with 70Watts MH Lamp. | |
| 32 | Supply and erection of .....Mtr RCC Pole including earth work etc,. complete as per the standard technical specification of BESCOM8Mtr 145Kg WL | Each |
| | Total Rs | |
| | Add KRIDL Charges 9.1% | |
| | Grand Total Rs | |

Certificate: Certify that theThe Above said Work has been carreidout satisfactorily

Assistant Executive Engineer (Ele)
BBMP Bangalore

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4 | 560 | 0 | 140.00 | 0.00 | 4 | 560.00 | |
| 25 | 2125 | 0 | 85.00 | 0.00 | 25 | 2125.00 | |
| 25 | 2125 | 0 | 85.00 | 0.00 | 25 | 2125.00 | |
| 200 | 28080 | 0 | 140.40 | 0.00 | 200 | 28080.00 | |
| 200 | 3240 | 0 | 16.20 | 0.00 | 200 | 3240.00 | |
| 160 | 12480 | 0 | 78.00 | 0.00 | 160 | 12480.00 | |
| 1700 | 51000 | 0 | 30.00 | 0.00 | 1700 | 51000.00 | |
| 49 | 2156 | 0 | 44.00 | 0.00 | 49 | 2156.00 | |
| 9 | 126 | 0 | 14.00 | 0.00 | 9 | 126.00 | |
| 80 | 6720 | 0 | 84.00 | 0.00 | 80 | 6720.00 | |
| 72 | 22032 | 0 | 306.00 | 0.00 | 72 | 22032.00 | |
| 4 | 7744 | 0 | 1936.00 | 0.00 | 4 | 7744.00 | |
| 8 | 3344 | 0 | 418.00 | 0.00 | 8 | 3344 00 | |
| 4 | 16800 | 0 | 4200.00 | 0.00 | 4 | 16800.00 | |
| 4 | 39660 | 0 | 9915.00 | 0.00 | 4 | 39660.00 | |
| 25 | 3315 | 0 | 132.60 | 0.00 | 25 | 3315.00 | |
| 18000 | 3960 | 0 | 0.22 | 0.00 | 18000 | 3960.00 | |
| 24 | 6312 | 0 | 263.00 | 0.00 | 24 | 6312.00 | |
| 82000 | 27060 | 0 | 0.33 | 0.00 | 82000 | 27060.00 | |
| 150 | 26400 | 0 | 176.00 | 0.00 | 150 | 26400.00 | |
| 12 | 2208 | 0 | 184.00 | 0.00 | 12 | 2208.00 | |
| 9 | 4500 | 0 | 500.00 | 0.00 | 9 | 4500.00 | |
| 0 | 0 | 27 | 6724.00 | 181548.00 | 27 | 181548.00 | |
| 10 | 60470 | 0 | 6047.00 | 0.00 | 10 | 60470.00 | |
| | 4398542.5 | | | 181548.00 | | 4580090.50 | |
| | 400267.3675 | | | 16520.868 | | 416788.2355 | |
| | 4798809.868 | | | 198068.87 | | 4996878.74 | |